

What is claimed is:

- 1 1. An audio system comprising:
2 a first audio source having a plurality of audio channel signals, said plurality of
3 audio channel signals including a surround channel signal;
4 a seat having a seat back;
5 an electroacoustical transducer mounted in said seat back; and
6 electronic circuitry coupling said first audio source and said electroacoustical
7 transducer for transmitting said surround channel signal to said electroacoustical
8 transducer.

- 9 2. An audio system in accordance with claim 1, wherein said seat back comprises
10 a headrest, and wherein said electroacoustical transducer is mounted in said headrest.

- 1 3. An audio system in accordance with claim 1, wherein said electroacoustical
2 transducer is mounted along an axis to radiate upwardly from said seat back.

- 1 4. An audio system in accordance with claim 1 and further comprising,
2 a second electroacoustical transducer,
3 wherein said plurality of audio channels includes a right surround channel signal
4 and a left surround channel signal,
5 wherein said electronic circuitry is adapted to transmit said left surround channels
6 signal to said first transducer and said right channel signal to said second transducer,
7 and wherein said first electroacoustical transducer is positioned to one side of a
8 normal head position of an occupant of said automobile seat,
9 and said second electroacoustical transducer is positioned to an other side of said
10 normal head position.

1 5. An audio system in accordance with claim 4, further including signal
2 processing circuitry for modifying said left surround channel signal and said right
3 surround channel signal to increase the perceived audible separation between sound
4 radiated by said first transducer and sound radiated by said second transducer.

1 6. An audio system in accordance with claim 4, further comprising
2 a second audio signal source, coupled to said circuitry for transmitting audio
3 signals from said second source to said first transducer and said second transducer.

1 7. An audio system in accordance with claim 6, wherein said circuitry is adapted
2 to transmit said left surround channel signal to said first transducer in the absence of a
3 signal from said second source and to mute said left surround channel signal in the
4 presence of a signal from said second source and wherein said circuitry is further adapted
5 to transmit said right surround channel signal to said second transducer in the absence of
6 a signal from said second source and to mute said right surround channel signal in the
7 presence of a signal from said second source.

1 8. An audio system in accordance with claim 7, wherein said second audio signal
2 source is a telephone.

1 9. An audio system, in accordance with claim 1, further comprising:
2 a second audio signal source, coupled to said circuitry, wherein said circuitry is
3 adapted to transmit signals from said second audio signal source to said transducer.

1 10. An audio system in accordance with claim 9, wherein said circuitry is adapted
2 to transmit said surround channel signal in the absence of a signal from said second
3 source and to mute said surround channel signal in the presence of a signal from said
4 second source.

1 11. An audio system in accordance with claim 10, wherein said second source is
2 a telephone.

1 12. An audio system in accordance with claim 1, wherein said seat is an
2 automobile seat.

1 13. A sitting device, comprising:
2 a back portion having an upper surface; and
3 an electroacoustical transducer, mounted in said upper surface along an axis and
4 oriented to radiate substantially upward from said upper surface.

1 14. A sitting device in accordance with claim 13, wherein said sitting device is an
2 automobile seat.

1 15. A sitting device in accordance with claim 14, wherein said automobile seat
2 comprises a headrest.

1 16. A sitting device in accordance with claim 14, further comprising a second
2 electroacoustical transducer mounted in said upper surface along an axis and oriented to
3 radiate upward from said upper surface.

1 17. A sitting device in accordance with claim 16, wherein said first transducer is
2 positioned to the left of a user's normal head position and said second transducer is
3 positioned to the right of said user's normal head position.

1 18. An automobile audio system for an automobile having a passenger
2 compartment having a plurality of seats, said audio system comprising:
3 a first audio signal source having a plurality of output channels, said plurality
4 including a surround output channel; and
5 a plurality of substantially identical electroacoustical transducers for radiating
6 sound waves corresponding to said surround channel;
7 wherein said plurality of electroacoustical transducers are positioned in said
8 passenger compartment such that each of said plurality of seats are positioned
9 substantially identically to, and in the direct field of, one of said plurality of
10 electroacoustical transducers.

1 19. An automobile sound system in accordance with claim 18, wherein said
2 plurality of electroacoustical transducers are coupled to said audio signal source by a
3 single equalizer.

1 20. An automobile sound system in accordance with claim 18, further comprising
2 a second plurality of substantially identical electroacoustical transducers, said first audio
3 signal source comprising a left surround output channel and a right surround output
4 channel, wherein said first plurality of transducers are for radiating sound waves
5 corresponding to signals corresponding to said left surround output channel and wherein
6 said second plurality of transducers are for radiating signals corresponding to said right
7 surround output channel, wherein said first plurality and said second plurality of
8 electroacoustical transducers are positioned in said passenger compartment such that each
9 of said plurality of seats are positioned substantially identically to, in the direct field of,
10 one of said first plurality of electroacoustical transducers and substantially identically to,
11 and in the direct field of, one of said second plurality of electroacoustical transducers.

1 21. An automobile sound system in accordance with claim 20, wherein said first
2 plurality of electroacoustical transducers is coupled to said audio signal source by a single
3 equalizer and wherein said second plurality of electroacoustical transducers are coupled
4 to said audio signal source by a single equalizer.

1 22. An automobile audio system for an automobile having a passenger
2 compartment having a plurality of seats, said audio system comprising:
3 a first audio signal source having a plurality of output channels, said plurality
4 including a surround output channel; and
5 a plurality of electroacoustical transducers, each mounted in one of said plurality
6 of seats for radiating sound waves corresponding to said surround channel; and
7 a second audio signal source, coupled to one of said first plurality of transducers.

1 23. An automobile sound system in accordance with claim 22, wherein said first
2 audio signal source and said second audio signal source are coupled to said one of said
3 plurality of transducers by circuitry, and wherein said circuitry is adapted to transmit said

4 surround channel signal in the absence of a signal from said second source and to mute
5 said surround channel signal in the presence of a signal from said second source.

1 24. An automobile sound system in accordance with claim 22, wherein said
2 second audio source is coupled exclusively to said one of said plurality of transducers and
3 wherein said one of said plurality of transducers is positioned in a driver's seat.

1 25. An automobile sound system in accordance with claim 22, wherein said
2 second audio source is coupled exclusively to said one of said first plurality of
3 transducers and wherein said one of said first plurality of transducers is positioned in a
4 driver's seat.

1 26. An automobile sound system in accordance with claim 22, wherein said first
2 audio signal source and said second audio signal source are coupled to said one
3 transducer by circuitry, and wherein said circuitry is adapted to transmit said surround
4 channel signal in the absence of a signal from said second source and to mute said
5 surround channel signal in the presence of a signal from said second source.

1 27. An automobile sound system in accordance with claim 22, further comprising
2 a second plurality of transducers, wherein said second audio signal source is coupled to
3 one of said second plurality of transducers.

1 28. An automobile sound system in accordance with claim 27, wherein said first
2 audio signal source and said second audio signal source are coupled to said one of said
3 first plurality of transducers and to said one of said second plurality of transducers by
4 circuitry, and wherein said circuitry is adapted to transmit said surround channel signal in
5 the absence of a signal from said second source and to mute said surround channel signal
6 in the presence of a signal from said second source.